

What is claimed is:

1. An optical disk device comprising:

irradiating means for irradiating a light beam onto a

5 recordable optical disk having a wobbled track;

light receiving means for receiving the light reflected  
from the optical disk and generating an electric signal  
corresponding to the reflected light; and

wobble signal reproducing means for reproducing, from the  
10 electric signal generated by the light receiving means, a wobble  
signal corresponding to a wobble of the track, wherein said wobble  
signal reproducing means reproduces the wobble signal within a  
period of irradiation of the light beam with a recording power.

15 2. The optical disk device according to claim 1, wherein said  
wobble signal reproducing means reproduces said wobble signal  
within the period of irradiation of the light beam with recording  
power, and also within a period where the reflected light is in  
a stable condition at a predetermined level after a pit is formed  
20 on the optical disk.

3. The optical disk device according to claim 1, wherein said  
wobble signal reproducing means further reproduces the wobble  
signal within a period of irradiation of the light beam with a  
25 reproduction power.

4. The optical disk device according to claim 2, wherein said

wobble signal reproducing means further reproduces the wobble signal within a period of irradiation of the light beam with a reproduction power.

5 5. An optical disk device comprising:

a light source that irradiates a light beam of recording power and a light beam of reproduction power alternately onto a recordable optical disk having a wobbled track;

10 a photodetector having two light receiving surfaces divided in a radial direction of the optical disk, said photodetector receiving, on the two light receiving surfaces, the light reflected from the optical disk and generating a first and a second output signal, respectively;

15 sample-hold circuits that sample and hold the first and second output signals, respectively, during a period of the light beam of recording power; and

a differentiator that determines a difference between two signals from said sample-hold circuits,

20 wherein said wobble signal is reproduced on the basis of an output of the differentiator.

6. The optical disk device according to claim 5, wherein said sample-hold circuits, within the period of the light beam of recording power, sample the first and second output signals at  
25 the timing delayed by a predetermined period of time after the start of recording.

7. The optical disk device according to claim 5, further comprising:

second sample-hold circuits that sample and hold the first and second output signals during a period of the light beam of

5 reproduction power;

a second differentiator that determines a difference between two signals from said second sample-hold circuits; and

an adder that adds the output of said differentiator and an output of said second differentiator,

10 wherein the wobble signal is reproduced from an output of the adder.

8. The optical disk device according to claim 7, further comprising:

15 a level adjusting circuit that equalizes the level of the signals outputted from the sample-hold circuits and the level of the signals outputted from said second sample-hold circuits.

9. The optical disk device according to claim 6, further comprising:

20 second sample-hold circuits that sample and hold the first and second output signals during a period of the light beam of reproduction power;

25 a second differentiator that determines a difference between two signals from said second sample-hold circuits; and

an adder that adds the output of said differentiator and an output of said second differentiator,

wherein the wobble signal is reproduced from an output of the adder.

10. The optical disk device according to claim 9, further comprising:

a level adjusting circuit that equalizes the level of the signals outputted from the sample-hold circuits and the level of the signals outputted from said second sample-hold circuits.

11. An optical disk device comprising:

a light source that irradiates a light beam of recording power and a light beam of reproduction power alternately onto a recordable optical disk having a wobbled;

a photodetector having two light receiving surfaces divided in a radial direction of the optical disk, said photodetector receiving, on the two light receiving surfaces, reflection light from the optical disk and generating a first and a second output signal, respectively;

amplifiers that amplify the first and second output signals during a period of the light beam of recording power and a period of the light beam of reproduction power, respectively, at different amplification factors corresponding to the recording power and the reproduction power; and

a differentiator that determines a difference between two signals from said amplifiers,

wherein said wobble signal is reproduced on the basis of an output of the differentiator.